

We claim:

1. A method of performing a delta update of an electronic shelf label (ESL)

comprising the steps of:

- (a) displaying informational text by the ESL, said ESL including a plurality of registers;
- (b) providing a first data image stored in a host computer system comprising the current contents of said plurality of registers;
- (c) providing a second data image stored in the host computer system comprising planned contents of said plurality of registers;
- (d) comparing the first data image and the second data image to determine which of the plurality of registers need to be updated; and
- (e) transmitting messages to the ESL updating only the previously determined registers which need to be updated.

2. The method of claim 1 further comprising, after step (a), the step of:
receiving an indication by an ESL manager that an update to one or more of the registers may be necessary.

3. The method of claim 2 wherein step (b) comprises the substep of:
reading, by the ESL manager, the first data image from an ESL table.

4. The method of claim 3 wherein step (c) comprises the substep of:
sending a request to a data reader instructing the data reader to provide to the ESL manager the second data image.

5. The method of 4 further comprising, after step (d) the step of:
creating a update data image comprising the differences between the first data image and the second data image; and

providing a copy of the update data image to a communication base station (CBS) manager.

6. The method of claim 5 wherein in step (e) the CBS manager initiates the transmission of messages to the ESL.

7. An electronic shelf label (ESL) system comprising:
an ESL including a plurality of registers and a display displaying informational text; and
a host computer including a first data image comprising the current contents of said plurality of registers, and a second data image comprising planned contents of said plurality of registers, said host computer comparing the first data image and the second data image to determine which of the plurality of registers need to be updated, and initiating transmission of messages to the ESL updating only the registers which need to be updated.

8. The system of claim 7 wherein the host computer comprises an ESL manager receiving an indication that an update to one or more of the registers may be necessary.

9. The system of claim 8 wherein the ESL manager reads the first data image from an ESL table.

10. The system of claim 9 wherein the ESL manager sends a request to a data reader instructing the data reader to provide to the ESL manager the second data image.

11. The system of 10 wherein the ESL manager creates a update data image comprising the differences between the first data image and the second data image, and provides a copy of the update data image to a communication base station (CBS) manager.

12. The system of claim 11 wherein the CBS manager initiates the transmission of messages to the ESL.